

Work Order ID 143684

March 21, 2016 9:57:05 AM

U/R

To be pulled on w/o 142652
143684 Bell Order

Page 1

Item ID: D3594-043

Accept

N900040100

Setup Start

NS1

Revision ID: URF 16-531

Item Name: Floor Doubler Assembly, LH

Stop

NS2

Start Date: 3/22/2016 Start Qty: 1.00

3 2 SH
3 2 SH

Cust Item ID:

Required Date: 3/30/2016 Req'd Qty: 1.00

Customer:

Reference:

Approvals:

Process Plan: SHDate: 20160321

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D3594

Rev B U/R

OK 16/3/21

0.00

100

Waterjet

FLOW CNC Waterjet

☆

PTB

FLOW WATER JET

Memo

1-Cut as per Dwg D3594

Dwg Rev: BProg Rev: B

2-Deburr if necessary

16.03.22

163594-3-4 custom

0.00

(2)

DC 16/03/28

110

QC2- Inspect parts off machine FAI/FAIB

0.00

110

QC

Quality Control

Memo

0.00

(2)

DC 16/03/28

DQA:

Date:

16.04.13



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

16/04/11

Work Order update only

Work Order: <u>143684</u>		DISPOSITION		AGAINST DEPARTMENT/PROCESS			
Part No. <u>D3594-043</u>		Rework ☒		Skid-tube ☐	Cross tube ☐	Water Jet ☒	Engineering ☒
NCR No. <u>16-5710</u>		Scrap ☐		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐
		Use-as-is ☐		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
		Suspected Unapproved ☐		Large Fab ☐	Composite ☐	Supplier ☐	
Date: <u>16/3/21</u>		Step #: <u>100</u>		QTY Effective: <u>2</u>		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition				DAS 12 9-89 <u>16/3/21</u>	
Cut doubler per marked up drawing. L.C. customer request		Acceptable to cut doubler with enlarged dimensions. Required to maintain proper edge distance when installing gas spring.		Completed By		DAS 12 9-89 <u>16/3/21</u>	
				Lead hand / Supervisor		Approval Verification DAS 38 9-89 <u>MAR 28 2016</u>	
				QC / QA Coordinator		Approval <u>16-03-28</u>	
Root Cause		FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☒	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☒		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	☒ Product Improvement	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐						
Misidentified ☐	Past Due ☐	OTHER: <u>Customer request</u>					

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : ☐					

Work Order ID 143684

March 21, 2016 9:57:05 AM

143684

Page 3

Item ID: D3594-043 Accept *N900040100* Setup Start *NS1*
 Revision ID: URF 16-531 Stop *NS2*
 Item Name: Floor Doubler Assembly, LH
 Start Date: 3/22/2016 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 3/30/2016 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Chemical Conversion Coat per QSI005 4.1	0.00							
150	HandFinish	0.00							
Hand Finishing	Memo								
160	QC7-Inspect Chemical Conversion Coat	0.00							
160	QC	0.00							
Quality Control	Memo								
170	Small Fab	0.00							
170	Small Fab	0.00							
Small Fab	Memo								
	Install Nut Plates As per Dwg D3594								

DAS
36
9-89DAS
36
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
		OTHER : ☐							

Work Order ID 143684

March 21, 2016 9:57:05 AM

143684

Page 4

Item ID: D3594-043 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: URF 16-531 Stop ***NS2***
Item Name: Floor Doubler Assembly, LH
Start Date: 3/22/2016 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 3/30/2016 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	QC5- Inspect part completeness to step on W/O	0.00							DAS 38 9.89
180						(2)			MAR 30 2016
QC	Memo	0.00							
Quality Control									
190	Identify as per dwg & Stock Location: <u>SA</u>	0.00							
190						2			MAR 30 2016
Packaging	Memo	0.00							DAS 8 9.89
Packaging									
200	QC21- Final Inspection - Work Order Release	0.00							MAR 31 2016
200									MAR 31 2016
QC	Memo	0.00							
Quality Control									

MCS MAR 30 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification ☐	☐	Pressure/Forced ☐	☐	Temperature/Cure ☐	☐
Design ☐	☐	Operator ☐	☐	Bending ☐	☐	Set-up ☐	☐
Doc/Data ☐	☐	Offset/Setup ☐	☐	Centre Not Concentric ☐	☐	BOM/Route ☐	☐
Equip/Tooling ☐	☐	Supplier ☐	☐	Cracks ☐	☐	Broken/Damage/Defect ☐	☐
Handling/Pre ☐	☐	Training ☐	☐	Crimp/Kink/Ripple/Wave ☐	☐	Inspection Incomplete/Unqualified ☐	☐
Material ☐	☐	Use for Testing ☐	☐	Cuffs ☐	☐	Contamination ☐	☐
Internal Transport ☐	☐	Poor Information ☐	☐	Crushing ☐	☐	Countersink ☐	☐
Tribal Knowledge ☐	☐	Rushing ☐	☐	Heat Treat ☐	☐	Cut Too Short ☐	☐
LOA ☐	☐	Product Improvement ☐	☐	Wave/Twist in Tube ☐	☐	Instructions Incomplete/Unclear ☐	☐
Substation ☐	☐	Process Improvement ☐	☐	Marks/Chatter ☐	☐	Drill Holes ☐	☐
Past Expiry Date ☐	☐	Manufacturing Process ☐	☐	OTHER : _____			
Misidentified ☐	☐	Past Due ☐	☐				

Picklist Print

March 21, 2016 9:57:10 AM

Page 1

Work Order ID: 143684

143684

Parent Item: D3594-043

D3594-043

Parent Item Name: Floor Doubler Assembly, LH

Start Date: 3/22/2016

Required Date: 3/30/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev :A New Issue 07-01-22 EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MS20426AD4-4		Purchased	No			100	Each	4,807.000	2	2			DAS
MS20426AD4-4									**			<u>16/03/30</u>	36 9-89
Rivet													

Location	Loc Qty	Loc Code
GA	2110	
125445	2110	
ST312	2697	
m132536	2697	

M6061T6S.080		Purchased	No			170	sf	187.7000	0.51	0.536842			
M6061T6S 080									**			<u>16/03/28</u>	
6061-T6 .080 Sheet													

Location	Loc Qty	Loc Code
MAT020	187.7	
134217	32	
m132772	39.9	
m133587	58	
m133828	57.8	

MS21069-5		Purchased	No			170	Each	88.0000	1	1			DAS
MS21069-5									**			<u>16/03/30</u>	36 9-89
Anchor nuts													

Location	Loc Qty	Loc Code
ST299	88	
m131920	88	

Under Review Notification

Raised By: M. BELLAVANCE

Product #: D412-698-023

Date: 16.02.25

Product Name: AUTOMATIC DOOR OPENER KIT

Part Number (D-Part and 9-Digit)	Drawing/Document & Current Affected Revision	"Y" or "N" Required for Each Part							Reserved ECN Log Number	Instructions Relevant to Each Part
		HOLD SHIPMENT	Red Tag/Quarantine Stock	Advise Customers	Stop Production	Re-Work Stock	IPP Under Review	Product Specifications Under Review		
D3594-043/-044/-3/-4	D3594 Rev. B	N	Y	N	Y	N	Y	N	16-531	See below.
D412-698-023	IIN-D412-698 Rev. E	N	Y	N	Y	N	Y	N	16-531	See below.

Description of Issue:

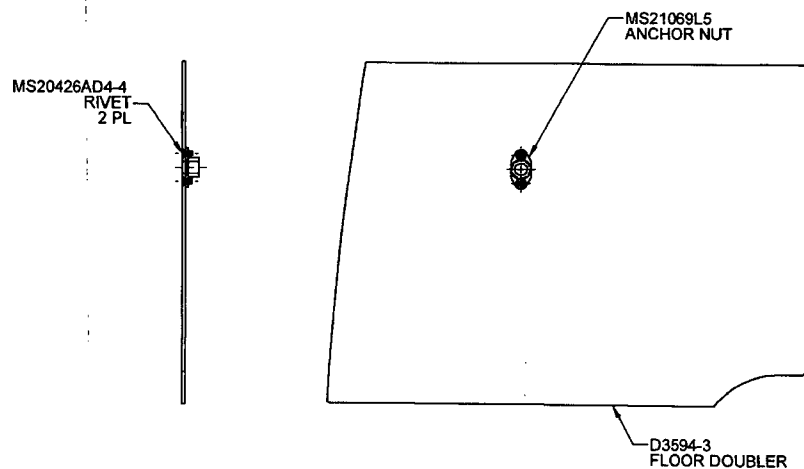
Current stock OK to ship to customers other than Bell Helicopter Mirabel.

20160321

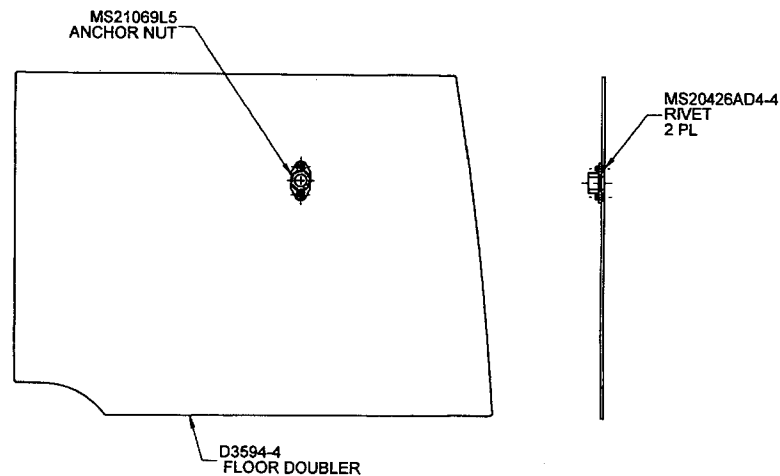
If shipping to Bell Helicopter Mirabel: must ship D412-698-023 with enlarged D3594-043/-044/-3/-4. Eng. To sign off deviations on W/Os.

Change: addition of material, 0.25", on the inboard and outboard edges as shown to facilitate installation with existing equipment.

QTY. -043	QTY. -044	PART NUMBER	DESCRIPTION
X		D3594-043	FLOOR DOUBLER ASSEMBLY, LH
	X	D3594-044	FLOOR DOUBLER ASSEMBLY, RH
1		D3594-3	FLOOR DOUBLER, LH
	1	D3594-4	FLOOR DOUBLER, RH
1	1	MS21069L5	ANCHOR NUT
2	2	MS20426AD4-4	RIVET, CSK



D3594-043 FLOOR DOUBLER ASSEMBLY



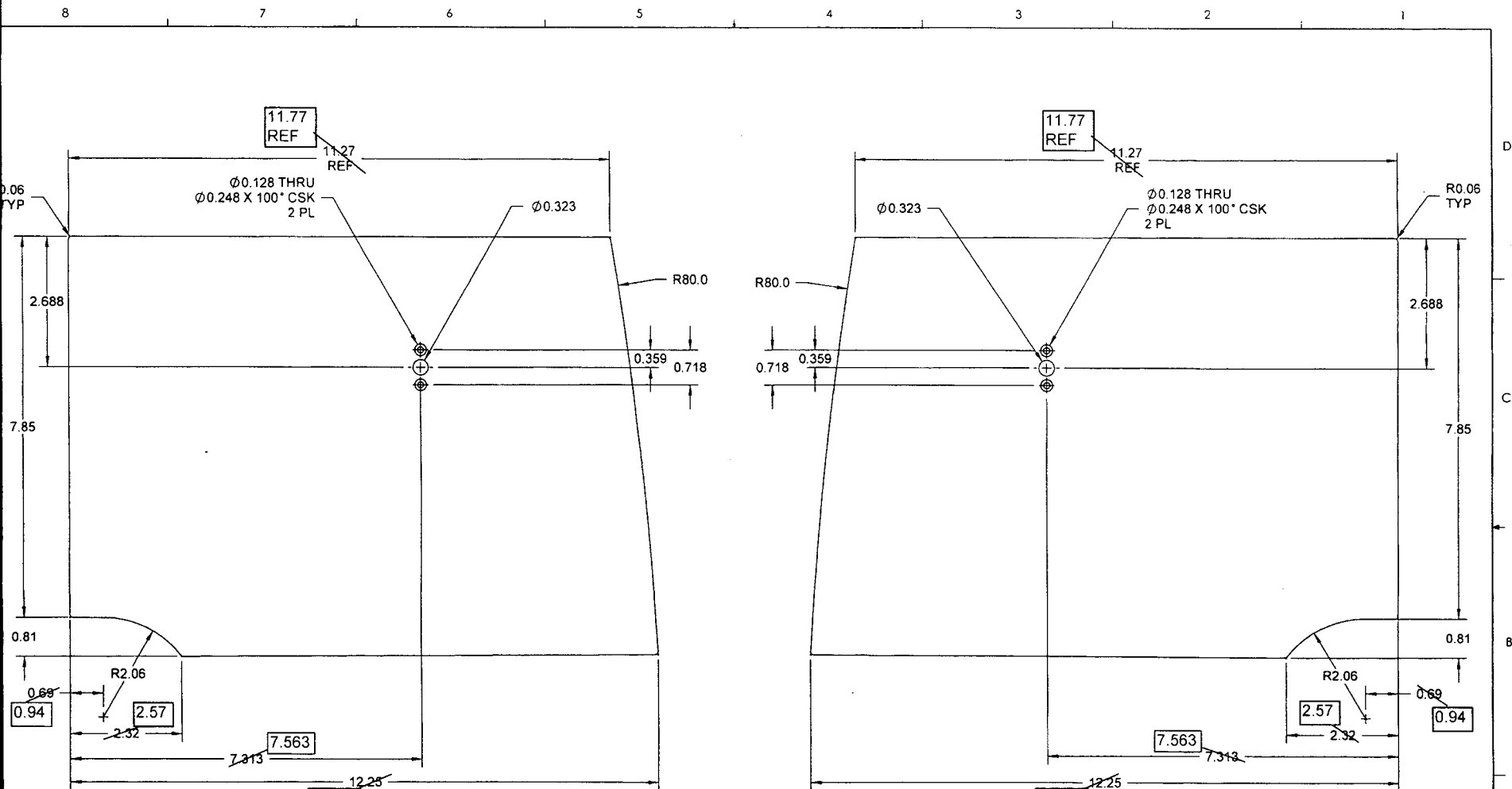
D3594-044 FLOOR DOUBLER ASSEMBLY

NOTES:

- 1) MATERIAL: -3 & -4
6061-T6 (OR 6061-T62) ALUMINUM SHEET, 0.080 THICK,
PER AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027
(REF. DART SPEC. M6061T6S.080)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) IDENTIFY WITH DART P/N "D3594-043/-044" USING FINE POINT PERMANENT INK MARKER
- 5) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010 MAX
- 7) WEIGHT -043 & -044: 0.80 lbs

DESIGN	MB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3594	SHEET 3 OF 4
APPROVED		TITLE	SCALE
DE APPR.		DOUBLER	NTS
DATE	08.05.14	COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

RELEASED
08.05.14



D3594-3 FLOOR DOUBLER

D3594-4 FLOOR DOUBLER

RELEASED
08.05.14

**DAS
22
9-89**

16.03.23

DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	MB		
CHECKED	MB	DRAWING NO. D3594	REV. B
MFG. APPR.	MB	TITLE DOOR DOUBLER ASSEMBLY	SCALE NTS
APPROVED	MB	COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DATE	08.05.14		

DART AEROSPACE LTD	Work Order:	143684
Description: Floor Doubler A66. LH	Part Number:	D3594-043
Inspection Dwg: D3594 Rev: B UIR		Page 1 of 1

[illegible]

DAS

Measured by:	ac	Checked by:	38 9-89	QC Inspector:	
Date:	16/03/28	Date:	MAR 28 2016	Date:	

Engineering Approval: (If necessary)		Date:	
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Rev	Date	Change	Revised by	Approved
B	14 07 31	New Issue	KJ	